

# Systems Software Specialist Series

## California State Personnel Board Specification

Series established July 24, 1975

### Scope

Classes in this series are used to analyze, design, code, implement, maintain, and evaluate computer software; this includes, but is not limited to, operating systems, control systems, proprietary software packages, telecommunications software, and database management software. These classes are also used as technical advisors to act as consultants to other information technology personnel in solving system problems and achieving the best use of available hardware and software resources; to act as leadperson or supervisor over other personnel; the classes are also used to coordinate and ensure effective operations of complex multiple hardware and software configurations; and to do other related work.

Computer software encompasses operating systems and utilities, telecommunications software, database management systems, special purpose vendor-supplied package software, special purpose control systems, and includes, but is limited to, both modified vendor-supplied systems and systems specifically developed by the user.

Entry into this series is typically through the Programmer II classification.

Schem Code	Class Code	Class
LM62	1585	Associate Systems Software Specialist (Technical)
LM60	1587	Systems Software Specialist I (Technical)
LM55	1373	Systems Software Specialist II (Technical)
LM58	1558	Systems Software Specialist II (Supervisory)
LM50	1367	Systems Software Specialist III (Technical)
LM52	1559	Systems Software Specialist III (Supervisory)
Systems Software Specialist Series Specification - Class Titles and Codes		

### Factors Affecting Position Allocation

Variety and complexity of work assignments, size of information technology activities, breadth of support activities, scope and consequence of decisions made, independence of action and decision, level of programming and analytical skills, and leadership or supervision exercised and direction received.

### Definition of Levels

#### All Levels:

The level of a position is influenced both by the place of the positions in the organization structure and by the type and complexity of the equipment configuration. Generally, the more complex and larger the equipment configuration, the higher the level of the position.

All levels essentially perform duties involving the same types of duties and are involved with similar activities and tasks. The differences in level are a matter of level of discretion, recognized expertise, and the scope of the problems.

## Associate Systems Software Specialist (Technical)

Under supervision, independently performs assigned systems programming (software) work; and/or acts as leadperson over others performing systems software work; and/or participates on software project teams. This is the full journey level.

## Systems Software Specialist I (Technical)

Under general supervision, acts as a leader on systems software projects, and/or works independently as a technical specialist on complex systems assignments. This is the advanced specialist level.

## Systems Software Specialist II (Technical)

Under general supervision, acts as a team leader on the more complex systems software projects, and/or works independently as a high-level technical specialist on the more complex systems assignments. This is the expert specialist level.

## Systems Software Specialist II (Supervisory)

Under general supervision, acts as a supervisor on the more complex software systems or systems software projects.

## Systems Software Specialist III (Technical)

Under administrative direction, works independently as the recognized technical specialist on the maintenance of the most complex software systems and software projects, and/or acts as a leader on projects involving the conversion to the most complex computer configurations.

## Systems Software Specialist III (Supervisory)

Under administrative direction, acts as a supervisor on projects involving the conversion to the most complex computer configuration and/or supervises a staff of software specialists responsible for the most complex assignments.

## Minimum Qualifications

### All Levels:

Unless otherwise stated, experience applicable to one of the following patterns may be combined on a proportional basis with experience applicable to other patterns to meet the total experience requirement.

## Associate Systems Software Specialist (Technical)

### EITHER I

One year of experience in the California state service performing duties comparable to a Programmer II, which must include the performance of duties such as coding, designing, modifying, installing, evaluating, and maintaining computer software.

### OR II

Eighteen months of progressively responsible experience in information technology systems study, design, and/or programming, which shall have included responsibilities such as coding, designing, modifying, installing, evaluating, and maintaining computer software. One year of experience in this pattern must include independent planning and software development, systems analysis, or systems programming (software) work.

### OR III

Equivalent to graduation from a recognized college or university with a minimum of 24 semester or 36 quarter units in information technology-related coursework. (Registration as a senior in a recognized institution will admit applicants to the examination, but they must produce evidence of graduation or its equivalent before they can be considered eligible for appointment.)

## Systems Software Specialist I (Technical)

### EITHER I

One year of experience in the California state service performing duties comparable to an Associate Systems Software Specialist (Technical).

### OR II

Thirty months of progressively responsible experience in information technology systems study, design, and programming, which shall have included responsibilities such as coding, designing, modifying, installing, evaluating, and maintaining computer software. One year of experience in this pattern must include independent systems programming, leadership over a group of systems software programmers, or participation on software project teams.

### OR III

Thirty semester units or 45 quarter units of graduate work in information technology-related coursework from a recognized college or university.

## Systems Software Specialist II (Technical)

## Systems Software Specialist II (Supervisory)

### EITHER I

One year of experience in the California state service performing duties comparable to a Systems Software Specialist I (Technical).

### OR II

Two years of experience in the California state service performing duties comparable to an Associate Systems Software Specialist (Technical).

### OR III

Three years of progressively responsible experience in information technology systems study, design, and programming, which shall have included responsibilities such as coding, designing, modifying, installing, evaluating, and maintaining computer software. One year of experience in this pattern must include

independent responsibility as a leader on systems software projects, or as a technical specialist on complex technology systems.

## **Systems Software Specialist III (Technical)**

## **Systems Software Specialist III (Supervisory)**

### **EITHER I**

One year of experience in the California state service performing duties comparable to a Systems Software Specialist II (Technical) or a Systems Software Specialist II (Supervisory).

### **OR II**

Two years of experience in the California state service performing duties comparable to a Systems Software Specialist I (Technical) or Systems Software Specialist I (Supervisory).

### **OR III**

Four years of progressively responsible experience in information technology systems study, design, and programming, which shall have included responsibilities such as coding, designing, modifying, installing, evaluating, and maintaining computer software. One year of experience in this pattern must include independent leadership responsibilities on complex systems software projects, or as a high-level technical specialist on the more complex systems assignments.

## **Knowledge and Abilities**

### **All Levels:**

Knowledge of: Information technology systems (software) programming, equipment, and its capabilities and interfaces between hardware and software; and the requirements for the installation and implementation of the most complex information technology software systems.

Ability to: Write complex programs; develop detailed program specifications; analyze data and situations, reason logically and creatively, identify problems, draw valid conclusions, and develop effective solutions; apply creative thinking in the design and development of methods of processing information with information technology systems; establish and maintain cooperative relationships with those contacted in the course of the work; work under pressure; communicate effectively; prepare effective reports; coordinate the activities of technical personnel.

## **Systems Software Specialist II (Supervisory)**

## **Systems Software Specialist III (Supervisory)**

Knowledge of: All of the above, and the department's a managers/supervisors responsibility for promoting equal opportunity in hiring and employee development and promotion, and for maintaining a work environment that is free of discrimination and harassment; and principles of personnel management, supervision, and training.

Ability to: All of the above, and supervise technical personnel; effectively promote equal opportunity in employment and maintain a work environment that is free of discrimination and harassment.

## **Class History**

<b>Class</b>	<b>Date Established</b>	<b>Date Revised</b>	<b>Title Changed</b>
Associate Systems Software Specialist (Technical)	09/01/1975	09/03/2008	12/04/1984
Systems Software Specialist I (Technical)	09/01/1975	09/03/2008	12/04/1984
Systems Software Specialist II (Technical)	09/01/1975	09/03/2008	04/17/1984
Systems Software Specialist II (Supervisory)	03/20/1984	09/03/2008	--
Systems Software Specialist III (Technical)	08/17/1978	09/03/2008	04/17/1984
Systems Software Specialist III (Supervisory)	03/20/1984	09/03/2008	--
Systems Software Specialist Series History - Dates Established, Revised, and Title Changed			

Updated 6/3/2012